

SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
January 2002

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during January was deficient. The maximum daily mean discharge of 5,280 cfs occurred on January 31. The minimum daily mean discharge was 934 cfs on January 21.

On the basis of a 5-station average, precipitation during January was 1.69 inches, which is 56 percent of the 61-year average. The maximum daily-average precipitation during January was 0.55 inches on January 7. Precipitation in the upper Delaware River Basin during the past 12 months was 9.84 inches less than the long-term average. Precipitation during January was 1.31 inches less than the long-term average for the month.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during January was 1,579 cfs, which is 32 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs was 2,574 cfs, or 58 percent of median (water years 1961-90).

Combined storage February 1, 2002 in Pepacton, Cannonsville, and Neversink Reservoirs was 29 percent of capacity above the point of maximum depletion. The combined storage of 79 billion gallons was 9 billion gallons more than that of one month ago and 150 billion gallons less than that of one year ago. Median storage on the first day of February in 34 years of record is 214 billion gallons. On the basis of reservoir storage, the river basin entered drought on December 1, 2001.

As part of a statewide network, the USGS operates 13 observation wells in the Pennsylvania part of the Delaware River Basin. Mean water levels during January were below average in all of the wells and new record low levels were set in 7 of the wells. Water levels in 7 of the wells were trending downward in comparison to December levels. Water levels in 12 of the wells were below January 2001 levels.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

	Dec. 1940 to Jan. 2001		February 2001 to January 2002					
	Average		Actual		Percent of average		Excess (+) or deficit (-)	
	Amount	Cumulative	Amount	Cumulative	By month	Cumulative	By month	Cumulative
Feb.	2.65	43.26	2.38	33.42	90	77	-.27	-9.84
Mar.	3.33	40.61	4.95	31.04	149	76	+1.62	-9.57
Apr.	3.77	37.28	1.35	26.09	36	70	-2.42	-11.19
May	4.21	33.51	3.08	24.74	73	74	-1.13	-8.77
June	3.96	29.30	4.06	21.66	103	74	+.10	-7.64
July	4.09	25.34	2.49	17.60	61	69	-1.60	-7.74
Aug.	3.85	21.25	*2.84	15.11	74	71	-1.01	-6.14
Sept.	3.83	17.40	*5.37	12.27	140	71	+1.54	-5.13
Oct.	3.38	13.57	1.18	6.90	35	51	-2.20	-6.67
Nov.	3.83	10.19	1.32	5.72	34	56	-2.51	-4.47
Dec.	3.36	6.36	2.71	4.40	81	69	-.65	-1.96
Jan.	3.00	3.00	1.69	1.69	56	56	-1.31	-1.31

Note: Amount shown in cumulative columns is total from month shown to present.

* Revised since last month.

STREAMFLOW, IN CFS DELAWARE RIVER AT MONTAGUE, N.J.

Month	1940-2000			2002 Monthly mean	Percent of median
	Maximum	Median	Minimum		
January (observed)	15,600 (1996)	4,960	1,318 (1981)	1,579	32
January (adjusted)	21,330 (1996)	5,874	1,064 (1981)	2,574	44
February (observed)	15,120 (1976)	5,480	1,748 (1980)		
February (adjusted)	20,330 (1981)	5,616	1,373 (1980)		